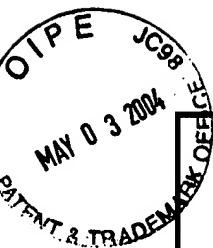| TRANSMITTAL FORM	Application Number	09/768,458
	Filing Date	01/25/2001
(to be used for all correspondence after initial filing)	First Named Inventor	Kraft, Reiner
	Art Unit	3677
	Examiner Name	Andre Jackson
Total Number of Pages in This Submission	Attorney Docket Number	ARC920000101US1

ENCLOSURES *(check all that apply)*

[X] Fee Transmittal Form	[ ] Drawing(s)	[ ] After Allowance communication to Group
[ ] Fee Attached	[ ] Licensing-related Papers	[ ] Appeal Communication to Board of Appeals and Interferences
[ ] Amendment / Reply	[ ] Petition	[X] Appeal Communication to Group **(Appeal Notice, Brief, Reply Brief)**
[ ] After Final	[ ] Petition to Convert to a Provisional Application	[ ] Proprietary Information
[ ] Affidavits/declaration(s)	[ ] Power of Attorney, Revocation Change of Correspondence Address	[ ] Status Letter
[ ] Extension of Time Request	[ ] Terminal Disclaimer	[ ] Other Enclosure(s) (please identify below):
[ ] Express Abandonment Request	[ ] Request for Refund	
[ ] Information Disclosure Statement	[ ] CD, Number of CD(s) _____	
[ ] Certified Copy of Priority Document(s)	Remarks	
[ ] Response to Missing Parts/ Incomplete Application		
[ ] Response to Missing Parts under 37 CFR 1.52 or 1.53		

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

Firm or Individual name	Lacasse & Associates, LLC
Signature	*Ramraj Soundararajan*
Date	May 3, 2004

CERTIFICATE OF TRANSMISSION/MAILING

I hereby certify that this correspondence is being facsimile transmitted to the USPTO or deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.P. Box 1450, Alexandria, VA 22313-1450 on the date shown below.

Type or printed name	
Signature	Date

FEE TRANSMITTAL
for FY 2004

Effective 10/01/2003. Patent fees are subject to annual revision.

Complete if Known	
Application Number	09/768,458
Filing Date	1/25/2001
First Named Inventor	Kraft, et al.
Examiner Name	Andre Jackson
Art Unit	3677
Attorney Docket No.	ARC920000101US1

[ ] Applicant Claims small entity status. See 37 CFR 1.27

TOTAL AMOUNT OF PAYMENT | ($)

METHOD OF PAYMENT (check all that apply)

[ ] Check [ ] Credit card [ ] Money Order [ ] Other [ ] None

[X] Deposit Account

Deposit Account Number	09-0441
Deposit Account Name	IBM CORPORATION

The Director is authorized to: *(check all that apply)*
[X] Charge fee(s) indicated below   [X] Credit any overpayments
[X] Charge any additional fee(s) or any underpayment of fee(s)
[ ] Charge fee(s) indicated below, **except for the filing fee**
to the above-identified deposit account.

FEE CALCULATION

1. BASIC FILING FEE

Large Entity		Small Entity		Fee Description	Fee Paid
Fee Code	Fee ($)	Fee Code	Fee ($)		
1001	770	2001	385	Utility filing fee	
1002	340	2002	170	Design filing fee	
1003	530	2003	265	Plant filing fee	
1004	770	2004	385	Reissue filing fee	
1005	160	2005	80	Provisional filing fee	

SUBTOTAL (1) | ($) 0

2. EXTRA CLAIM FEES FOR UTILITY AND REISSUE

	Extra Claims		Fee from below		Fee Paid
Total Claims	-20**=		X	=	
Independent Claims	- 3**=		X	=	
Multiple Dependent				=	

Large Entity		Small Entity		Fee Description
Fee Code	Fee ($)	Fee Code	Fee ($)	
1202	18	2202	9	Claims in excess of 20
1201	86	2201	43	Independent claims in excess of 3
1203	290	2203	145	Multiple dependent claim, if not paid
1204	86	2204	43	**Reissue independent claims over original patent
1205	18	2205	9	**Reissue claims in excess of 20 and over original patent

SUBTOTAL (2) | ($) 0

** or number previously paid, if greater; For Reissues, see above

FEE CALCULATION (continued)

3. ADDITIONAL FEES

Large Entity		Small Entity		Fee Description	Fee Paid
Fee Code	Fee ($)	Fee Code	Fee ($)		
1051	130	2051	65	Surcharge – late filing fee or oath	
1052	50	2052	25	Surcharge – late provisional filing fee or cover sheet	
1053	130	1053	130	Non-English specification	
1812	2,520	1812	2,520	For filing a request for *ex parte* reexamination	
1804	920*	1804	920*	Requesting publication of SIR prior to Examiner action	
1805	1,840*	1805	1,840*	Requesting publication of SIR after Examiner action	
1251	110	2251	55	Extension for reply within first month	
1252	420	2252	210	Extension for reply within second month	
1253	950	2253	475	Extension for reply within third month	
1254	1,480	2254	740	Extension for reply within fourth month	
1255	2,010	2255	1,005	Extension for reply within fifth month	
1401	330	2401	165	Notice of Appeal	
1402	330	2402	165	Filing a brief in support of an appeal	330
1403	290	2403	145	Request for oral hearing	
1451	1,510	1451	1,510	Petition to institute a public use proceeding	
1452	110	2452	55	Petition to revive – unavoidable	
1453	1,330	2453	665	Petition to revive – unintentional	
1501	1,330	2501	665	Utility issue fee (or reissue)	
1502	480	2502	240	Design issue fee	
1503	640	2503	320	Plant issue fee	
1460	130	1460	130	Petitions to the Commissioner	
1807	50	1807	50	Processing fee under 37 CFR 1.17(q)	
1806	180	1806	180	Submission of Information Disclosure Stmt	
8021	40	8021	40	Recording each patent assignment per property (times number of properties)	
1809	770	2809	385	Filing a submission after final rejection (37 CFR 1.129(a))	
1810	770	2810	385	For each additional invention to be examined (37 CFR 1.129(b))	
1801	770	2801	385	Request for Continued Examination (RCE)	
1802	900	1802	900	Request for expedited examination of a design application	

Other fee (specify) _____

*Reduced by Basic Filing Fee Paid

SUBTOTAL (3) | ($) 330

SUBMITTED BY | Complete (if applicable)

Name (Print/Type)	Ramraj Soundararajan	Registration No. (Attorney/Agent)	53832	Telephone	(703) 838-7683
Signature	Ramraj Soundararajan			Date	5/03/2004

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPEAL BRIEF- 37 C.F.R. 1.192

U.S. Patent Application 09/768,458 entitled,

"ENHANCING SALES FOR SERVICE PROVIDERS BY UTILIZING
AN OPPORTUNISTIC APPROACH BASED ON AN UNEXPECTED
CHANGE IN SCHEDULE OF SERVICES (TIME, LOCATION)"

Real Party in Interest: International Business Machines Corporation

Related Appeals and Interferences:

None

Status of Claims:

Claims 1-13 and 15-33 are pending.

Claims 1-13 and 15-33 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S.

Patent Application Publication 2002/0057212 to **Hamilton et al.**

Status of Amendments:

Amendment filed October 3, 2003, entered.

Summary of the Invention:

The presently claimed invention provides for a system and a method for enhancing sales

for service providers by utilizing an opportunistic approach based on an unexpected change in a

schedule or services (time, location). The present invention automatically identifies windows of

opportunity (time, physical location), and once such a window of opportunity is detected, the

invention determines whether people are affected directly from the change of a schedule. This

information is then used by service providers to act quickly, in order to enhance sales. The

present invention does not need to know who the affected people are, nor their preferences

(profile data). Heuristics to determine a window of opportunity are based only on schedule

changes, which are associated with a rule database. Thus, the present system utilizes network-

based technologies and communications to generate or increase additional sales for service

providers.

As an example, consider a train, which is scheduled to leave at 7:00 AM, but due to

unknown circumstances the schedule is changed to 7:45 AM. There is a good chance that there

are people who use this train to commute to work, and were not informed in time about this

unexpected change in a scheduled event. Most of these people probably will decide to wait there

until 7:45 AM, instead of investigating alternatives. The present invention's system and method

identifies such unexpected events as "window of opportunities". This information is then used

by service providers to deliver useful services to these waiting people in order to help them

satisfy their demands or utilize their blocked time. Hence, service providers like food delivery

services, newspaper delivery services, taxicab services, etc., utilize an opportunistic approach to deliver useful services for these waiting people in order to help meet their demands (e.g., by delivering food, etc.) or utilize their blocked time (e.g., by selling a magazine, providing entertainment, etc.)

Pending Claims (all citations are made from the original specification, including the figures):

1.   A system *(figure 4)* for enhancing sales for service providers by utilizing an opportunistic approach based on an unexpected change in a schedule of service, said system comprising:

an event retriever *(figure 4, 402)*, said event retriever generating an event pair which comprises a target value and an actual value associated with said schedule of services *(page 14, line 13 – page 18, line 4)*;

an event observer *(figure 4, 404)*, said event observer receiving said event pairs from said event retriever, calculating the difference between said actual and target value, and based on one or more rules from a first set of rules, identifying and notifying a window of opportunity detector regarding potential windows of opportunities, wherein each potential window of opportunity defines a time period of customer inactivity *(page 18, lines 6-18)*;

said window of opportunity detector *(figure 4, 406)*, which receives said potential windows opportunities, detects, based on one or more rules from a set of second rules, if a window of opportunity exists, and if so, matches said detected windows of opportunities with service providers for the purposes of providing a new product or a service separate from said scheduled service *(page 18, line 20 – page 19, line 14)*.

2.   A system for enhancing sales for service providers by utilizing an opportunistic approach based on an unexpected change in a schedule of service, as per claim 1, wherein said event retriever further utilizes service provider schema information stored in a service provider schema database to generate said event pairs *(page 14, line 20 – page 15, line 3)*.

3.   A system for enhancing sales for service providers by utilizing an opportunistic approach based on an unexpected change in a schedule of service, as per claim 2, wherein said service provider schema is a document type definition (DTD) *(page 14, line 20 – page 15, line 3)*.

4. A system for enhancing sales for service providers by utilizing an opportunistic approach based on an unexpected change in a schedule of service, as per claim 2, wherein said service provider schema is an XML schema *(page 14, line 20 – page 15, line 3)*.

5. A system for enhancing sales for service providers by utilizing an opportunistic approach based on an unexpected change in a schedule of service, as per claim 1, wherein said one or more rules from said set of first rules is a threshold rule, and said potential windows of opportunities are identified based on comparing said difference between said actual and target value against said threshold *(page 18, lines 11-14)*.

6. A system for enhancing sales for service providers by utilizing an opportunistic approach based on an unexpected change in a schedule of service, as per claim 1, wherein said one or more rules from said set of second rules are provided externally by said service providers *(page 19, lines 3-4)*.

7. A system for enhancing sales for service providers by utilizing an opportunistic approach based on an unexpected change in a schedule of service, as per claim 1, wherein said system further accesses a subscription management service wherein said events and schedules are defined for tracking *(figure 4, 414 and page 15, lines 4-6)*.

8. A system for enhancing sales for service providers by utilizing an opportunistic approach based on an unexpected change in a schedule of service, as per claim 1, wherein said one more rules of said set of first and one or more rules of a set of second rules are stored in a rule database *(page 12, lines 13-15)*.

9. A system for enhancing sales for service providers by utilizing an opportunistic approach based on an unexpected change in a schedule of service, as per claim 1, wherein said events are Internet Calendaring and Scheduling Core Object Specification (iCalendar) events *(page 15, lines 8-12)*.

10.   A system for enhancing sales for service providers by utilizing an opportunistic approach based on an unexpected change in a schedule of service, as per claim 1, wherein said event retriever further comprises:

an enhanced gatherer, which dynamically receives information from service providers over a network using simulated user interaction *(page 14, lines 18-20)*, and

a pattern matcher, which extracts said event pair from said received information based on matching the structure of said received information with that of a stored schema of said service providers *(page 15, lines 14-15)*.

11.   A system for enhancing sales for service providers by utilizing an opportunistic approach based on an unexpected change in a schedule of service, as per claim 10, wherein said enhanced gatherer is a web crawler *(page 14, lines 18-20)*.

12.   A system for enhancing sales for service providers by utilizing an opportunistic approach based on an unexpected change in a schedule of service, as per claim 10, wherein said network comprises any of the following: local area networks (LANs), wide area networks (WANs), wireless networks, or the Internet *(page 19, lines 16-20)*.

13.   A system for enhancing sales for service providers by utilizing an opportunistic approach based on an unexpected change in a schedule of service, as per claim 1, wherein said received event pairs are extracted from a markup language form *(page 15, lines 1-3)*.

15.   A method for enhancing sales for service providers by utilizing an opportunistic approach based on an unexpected change in a schedule of service, wherein said step of detecting a window of opportunity comprises of:

electronically acquiring service schedules of one or more service providers *(page 14, lines 13-17)*;

detecting an unexpected change in said schedule *(page 12, lines 1-2)*;

checking if potential customers are blocked due to said unexpected change in schedule, said blocking defining a period of inactivity *(page 12, lines 2-3)*;

detecting one or more potential windows of opportunities for sales to said potential

customers *(page 12, lines 5-6)*;

checking if service providers benefit from said detected potential windows of

opportunities *(page 12, lines 3-4)*, and

providing notification regarding said potential windows of opportunities to service

providers who benefit from such information, and

wherein said service providers offer a new product or service separate from said

scheduled service to said potential customer during said period of inactivity *(page 12, lines 7-*

15).

16.   A method for enhancing sales for service providers by utilizing an opportunistic approach

based on an unexpected change in a schedule of service, as per claim 15, wherein said step of

detecting an unexpected change in said schedule further comprises:

simulating user interaction via data gathering software to request data from service

providers via a network *(figure 5, 502 and page 14, lines 18-20)*;

receiving information from said service providers via said network *(figure 5, 504)*;

accessing a service provider schema database and reading schema regarding said service

providers *(figure 5, 506)*;

matching said received information with said read schema associated with said service

providers *(figure 5, 508)*, and

extracting data events, comprising actual and target data, based on said matching step

(figure 5, 510).

17.   A method for enhancing sales for service providers by utilizing an opportunistic approach

based on an unexpected change in a schedule of service, as per claim 16, wherein said network

comprises any of the following: local area networks (LANs), wide area networks (WANs),

wireless networks, or the Internet *(page 19, lines 16-20)*.

18.   A method for enhancing sales for service providers by utilizing an opportunistic approach

based on an unexpected change in a schedule of service, as per claim 15, wherein said data

gathering software comprises data mining software *(page 16, lines 1-2)*.

19.   A method for enhancing sales for service providers by utilizing an opportunistic approach

based on an unexpected change in a schedule of service, as per claim 15, wherein said extracted

data events are iCalendar events *(page 15, lines 8-12)*.

20.   A method for enhancing sales for service providers by utilizing an opportunistic approach

based on an unexpected change in a schedule of travel services, wherein said method

comprising:

    extracting standardized event data comprising an actual event value and a target value

from said travel service provider via a network *(figure 9, 902)*;

    comparing, based on one or more rules from a set of first rules, the difference of said

actual value and target value against a threshold value *(figure 9, 908)*;

    detecting a window of opportunity based on one or more rules from a set of second rules

(figure 9, 910), and

    distributing said window of opportunity information to said service providers for

enhancing said service provider's sales, if said detection of window of opportunity occurs said

sales providers providing a new product or a new service separate from said scheduled service

(page 19, lines 12-14).

21.   A method for enhancing sales for service providers by utilizing an opportunistic approach

based on an unexpected change in a schedule of travel services, 0as per claim 20, wherein said

travel services comprises any of: airlines, trains, or buses *(page 9, lines 14-16)*.

22.   A method for enhancing sales for service providers by utilizing an opportunistic approach

based on an unexpected change in a schedule of travel services, as per claim 20, wherein said

event data is arrival or departure times and locations associated with said specific airline *(page*

16, lines 18 - page 17, line 14).

23.   A method for enhancing sales for service providers by utilizing an opportunistic approach

based on an unexpected change in a schedule of travel services, as per claim 20, wherein said

one or more rules from said set of first rules is based on said difference of actual and target

values being above or below a predetermined threshold *(figure 9, 908)*.

24. A method for enhancing sales for service providers by utilizing an opportunistic approach based on an unexpected change in a schedule of travel services, as per claim 20, wherein said one or more rules from said set of second rules is based on rules provided by service providers *(page 19, lines 3-4)*.

25. A method for enhancing sales for service providers by utilizing an opportunistic approach based on an unexpected change in a schedule of travel services, as per claim 24, wherein said rules provided by service providers are stored in a rules database *(page 12, lines 13-15)*.

26. A method for enhancing sales for service providers by utilizing an opportunistic approach based on an unexpected change in a schedule of travel services, as per claim 20, wherein said step of extracting standardized event data further comprises:

accessing said travel service provider's webpage over a network *(figure 6 and page 16, lines 12-13)*;;

posting data regarding a specific travel provider in said webpage and querying for information regarding schedule of said specific travel service *(figure 6 and page 16, lines 13-16)*;

receiving a web document from said travel service provider regarding said schedule of said specific travel provider *(figure 7 and page 16, line 18)*;

accessing a service provider schema database and reading a schema associated with said travel service provider *(figure 7 and page 16, line 19 - page 17, line 4)*;

matching said received web document with said read schema and extracting event data *(page 16, line 19 - page 17, line 4)*, and

standardizing said extracted event data *(page 17, lines 6-8)*.

27. A method for enhancing sales for service providers by utilizing an opportunistic approach based on an unexpected change in a schedule of travel services, as per claim 24, wherein said network comprises any of the following: local area networks (LANs), wide area networks (WANs), wireless networks, or the Internet *(page 19, lines 16-20)*.

28.   A method for enhancing sales for service providers by utilizing an opportunistic approach based on an unexpected change in a schedule of travel services, as per claim 26, wherein said step of posting data is accomplished using a HTTP POST command *(page 15, lines 15-16)*.

29.   A method for enhancing sales for service providers by utilizing an opportunistic approach based on an unexpected change in a schedule of travel services, as per claim 26, wherein said web document is of any of following formats: HTML, SGML, or XML *(page 15, lines 1-3)*.

30.   A method for enhancing sales for service providers by utilizing an opportunistic approach based on an unexpected change in a schedule of travel services, as per claim 26, wherein said read schema is an XML schema *(page 15, lines 1-3)*.

31.   A method for enhancing sales for service providers by utilizing an opportunistic approach based on an unexpected change in a schedule of travel services, as per claim 26, wherein said read schema is a DTD *(page 15, lines 1-3)*.

32.   A method for enhancing sales for service providers by utilizing an opportunistic approach based on an unexpected change in a schedule of travel services, as per claim 26, wherein said step of standardizing involves standardizing based on iCalendar standard *(page 17, lines 6-8)*.

33.   An article of manufacture comprising a computer user medium having computer readable code embodied therein which provides for a e-commerce method for enhancing sales to potential customers, said article comprising:

    computer readable code electronically acquiring service schedules of one or more service providers *(page 19, line 20 - page 20, line 1 and page 14, lines 13-17)*;

    computer readable code detecting an unexpected change in said schedule *(page 19, line 20 - page 20, line 1 and page 12, lines 1-2)*;

    checking if potential customers are blocked due to said unexpected change in schedule, said blocking defining a period of inactivity *(page 19, line 20 - page 20, line 1 and page 12, lines 2-3)*;

computer readable code detecting one or more windows of opportunities for sales to said

potential customers *(page 19, line 20 - page 20, line 1 and page 12, lines 5-6)*;

computer readable code checking if service providers benefit from said detected potential

windows of opportunities *(page 19, line 20 - page 20, line 1 and page 12, lines 3-4)*, and

computer readable code providing notification regarding said potential windows of

opportunities to service providers who benefit from such information, wherein said service

providers offer a new product or service separate from said scheduled service to said potential

customers during said period of inactivity *(page 19, line 20 - page 20, line 1 and page 12, lines

7-15)*.

Issues:

I.   Does the Hamilton reference teach or make obvious the claims of the present invention?

II.   Was a proper rejection made under 35 U.S. C. § 103(a) using existing USPTO guidelines? More particularly, did examiner in the office action of 01/02/2004 address the limitations of each rejected claim with specificity as per USPTO guidelines (i.e., establish a *prima facie* case of obviousness)?

Grouping of Claims:

All claims stand or fall together (1-13 and 15-33).

Argument:

REJECTIONS UNDER 35 U.S.C. § 103(a)

The examiner has rejected claims 1-13 and claims 15-33 under U.S.C. §103(a) as being

unpatentable over the U.S. patent application publication 2002/0057212 to Hamilton et al.

(hereon Hamilton). To establish a *prima facie* case of obviousness under U.S.C. §103, three

basic criteria must be met. First, there must be some suggestion or motivation, either in the

references themselves or in the knowledge generally available to one of ordinary skill in the art,

to modify the reference or to combine reference teachings. Second, there must be a reasonable

expectation of success. Finally, the prior art reference (or references when combined) must teach

or suggest all the claim limitations. Additionally, the teaching or suggestion to make the claimed

combination and the reasonable expectation of success must both be found in the prior art, and

not based on applicants' disclosure (In re Vaeck, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir.

1991)). Applicants' contend, and as will be shown below, that the teaching of Hamilton, or an

obvious variation thereof, fails to provide for many of the limitations of claims 1-13 and 15-33.

Applicants' wish to emphasize that it is the duty of the examiner to specifically point out

limitations with respect to each and every claim element such that applicants' are aware of how

the examiner is applying a reference in a rejection. Specifically, §1.104(c)(2) of Title 37 of the

Code of Federal Regulations and section 707 of the M.P.E.P explicitly states that "the particular

part relied on must be designated" and "the pertinence of each reference, if not apparent, must be

clearly explained and each rejected claim specified".

Applicants' contend that the examiner, in pages 2-5 of the office action of 01/02/2004,

fails to specifically identify how the Hamilton reference provides for each of the claim

limitations with respect to claims 1-13 and 15-33. Pages 2-5 of the office action merely state

what Hamilton teaches and the examiner fails to disclose how specific citations in the Hamilton

reference apply/equate to specific limitations of claims 1-13 and 15-33.

Due to lack of specificity, applicants' contend that the examiner, in the office action of 01/02/2004, has failed to address a *prima facie* case of obviousness by failing to clearly point how the Hamilton reference applies to each and every limitation of each rejected claim. In light of the ambiguous rejections made based on mere assertions, applicants' wish to note that they are unable to respond with specificity, and the response provided below is addressed with respect to the Hamilton reference in its entirety.

Hamilton provides for a multiple mode (multimodal) multimedia transportation information system that uses a processor, software, computer signals, and display units to integrate several transportation modes. Hamilton's system tracks, monitors, collects, extracts, analyzes, processes, forecasts, stores, distributes, and presents transportation information to and from the various transportation modes. The display units are located on buses, ferries, trains, subways, emergency vehicles, airports, etc., and in airports and other buildings where passengers may want real-time transportation information. Data is presented on display units located within a transportation network, wherein this data includes scheduling, road conditions, weather, emergency information from state and local governments, routing, closures, status, locations, arrival and departure times, advertisements of products and services, messages, fares, connection times, traffic information, etc. Hamilton, however, does not disclose an opportunistic system or method that enhances sales for service providers based upon unexpected change in a schedule of a service.

Applicants' independent claim 1 provides for an opportunistic system comprising an event retriever, an event observer, and a window of opportunity detector. The event retriever, as described in claim 1, generates an event pair comprising an actual value and a target value associated with the scheduled service. The event observer of claim 1 receives the event pair and calculates a difference between the actual value and the target value. The calculated difference is used with a first set of rules to notify the window of opportunity detector regarding potential windows of opportunity, wherein each widow of opportunity defines a period of customer inactivity. The window of opportunity detector receives potential windows, and based upon a second set of rules, detects if a window of opportunity exists. If such a window of opportunity exists, the window of opportunity detector matches the detected window of opportunity with

service providers for providing a new product or service that is different than the scheduled service.

A closer reading of the Hamilton reference in its entirety fails to provide for a system where services are presented to a customer based on a period of customer inactivity. As mentioned above, claim 1 discloses a system that identifies and notifies a window of opportunity detector regarding "potential windows of opportunities, wherein each potential window of opportunity defines a period of inactivity". This limitation is neither taught nor rendered obvious by the Hamilton reference, as there is no system component or method step in Hamilton identifying potential windows of "customer inactivity" based on a calculated difference between an actual value and a target value.

Paragraph 78 and figure 21 of the Hamilton publication references a display unit 2100 presenting an advertisement from the advertising system 112. The presentation shows an advertisement for "McDONALD's BIG X-TRA 99¢" and that the nearest location is at Pacific Highway South and 272nd. The display unit 2100 presents advertisements from vendors based on preprogrammed advertising slots. In other words, Hamilton's services are preprogrammed advertisements and Hamilton fails to disclose a link between a service offered and an identified period of inactivity, which is at least one limitation of claim 1.

Another limitation of claim 1 is that windows of opportunities are detected based on a set of rules and are matched with service providers who then provide a new product or service that is different than the scheduled service. The displaying of advertisements in figures 21 and 22 of the Hamilton reference is not based upon any calculation or rules, but is based upon preprogrammed advertising slots.

Yet another limitation of claim 1 is that claim 1 requires there be contact between the system of applicants' invention and service providers. Hamilton, explicitly or implicitly, fails to teach any contact between the disclosed system and the service providers upon detecting windows of opportunities.

With regards to claims 2-4, the examiner merely states that it would have been obvious to have retrieved schema information from a service provider schema database to generate event pairs. Applicants' contend that this statement is a mere assertion as the examiner has failed to show any teaching in the Hamilton reference that would allow one of ordinary skill in the art to have modified Hamilton's teaching to provide for applicants' opportunistic approach of claim 1 wherein event pairs generated by retrieving schemas or DTDs from a service provider's database. Additionally, applicants' contend that the arguments presented for claim 1 substantially apply for claims 2-4 as they inherit the limitations of the claim from which they depend.

With regard to claim 5, the examiner contends that it would have been obvious to calculate the difference between the actual time and the target time to "formulate a threshold time, defined as the time necessary or needed for a vendor/seller/service provider to present their advertisement". As mentioned earlier, the displaying of advertisements in figures 21 and 22 of the Hamilton reference is not based upon any calculation or rules, but is based upon preprogrammed advertising slots. Applicants' contend the examiner relies heavily on applicants' disclosure to merely state that many of the limitations are obvious in view of Hamilton, when there is not teaching or suggestion in Hamilton for modifying and providing many of the limitations of applicants' claimed invention.

The above-mentioned arguments for claim 1 substantially apply to claims 6 and 8, as applicants' have shown that the displaying of advertisements in figures 21 and 22 of the Hamilton reference is not based upon any calculation or rules, but is based upon preprogrammed advertising slots. Hence, applicants' contend that it would have not been obvious to have modified Hamilton to provide an opportunistic system of claim 1 with the added limitation of having rules provided by external service providers or rules stored in a rules database.

The above-mentioned arguments for claim 1 also substantially apply to claim 7, as it would have not been obvious to have modified Hamilton to provide an opportunistic system of claim 1 with the added limitation of accessing a subscription management service wherein the events and schedules are defined for tracking.

With respect to claims 9-13, applicants' contend that the examiner has failed to establish a *prima facie* case of obviousness in at least that they inherit the limitations of claim 1. Furthermore, the examiner has failed to show how the Hamilton method can be modified to provide for the system of claim 1 with the added limitation of such a system working with a web crawler or such a system being implemented over a network such as the Internet.

Applicants' independent claims 15 and 33 provide for a method and an article of manufacture which enhances sales for service providers by utilizing an opportunistic approach based on an unexpected change in a schedule of service. The steps as implemented in claims 15 and 33 comprise: electronically acquiring service schedules of one or more service providers, detecting an unexpected change in said schedule, checking if potential customers are blocked due to said unexpected change in schedule wherein blocking defines a period of inactivity, detecting one or more potential windows of opportunities for sales to said potential customers, checking if service providers benefit from said detected potential windows of opportunities, and providing notification regarding said potential windows of opportunities to service providers who benefit from such information. The service providers, in claims 15 and 33, offer a new product or service separate from said scheduled service to said potential customer during said period of inactivity.

A closer reading of the Hamilton reference in its entirety fails to provide a method where services are presented to a customer based on an identification if potential customers are blocked (period of inactivity) due to an unexpected change in schedule. This limitation is neither taught nor rendered obvious by the Hamilton reference, as there is no method step in Hamilton identifying potential windows of "customer inactivity" based on a difference in an unexpected change in schedule. Furthermore, claims 15 and 33 require the limitation of providing services based on said blocked time or periods of customer inactivity. In contrast, the Hamilton reference provides preprogrammed advertisements (as shown in figures 21 and 22 of the Hamilton reference) which are not based on calculated periods of inactivity.

Yet another limitation of independent claim 15 and 33 is that they require there be contact with the service providers. Specifically, claims 15 and 33 require the step of "providing notification regarding said potential windows of opportunities to service providers. Hamilton, explicitly or implicitly, fails to teach any contact with the service providers, based on a calculated period of inactivity, as the ads/services provided are preprogrammed static advertisements.

Applicants' independent claim 20 provides for a method for enhancing sales for service providers by utilizing an opportunistic approach based on an unexpected change in a schedule of travel services. The method of claim 20 comprises the steps of: extracting standardized event data (comprising an actual event value and a target value) from said travel service provider via a network, comparing (based on one or more rules from a set of first rules) the difference of said actual value and target value against a threshold value, detecting a window of opportunity based on one or more rules from a set of second rules, and distributing the window of opportunity information to service providers for enhancing said service provider's sales. If a window of opportunity is detected, the service providers offer the customer a new product or a new service that is different from the scheduled service.

One limitation of claim 20 is that windows of opportunities are detected based on a set of rules and are matched with service providers who then provide a new product or service that is different than the scheduled service. The displaying of advertisements in figures 21 and 22 of the Hamilton reference is not based upon any calculation or rules, but is based upon preprogrammed advertising slots.

Another limitation of claim 20 is that it requires there be contact with service providers. Specifically, claim 20 requires the limitation of "distributing said window of opportunity information to the service providers". Hamilton, explicitly or implicitly, fails to teach or render obvious the limitation of establishing contact with any of the service providers based on a calculated period of inactivity.

Arguments with respect to claims 1-13, 15, and 20 substantially apply for claims 16-19 and 21-32 in at least that they inherit the limitations of the claim from which they depend.

Hence, applicants' contend that the examiner has failed to establish a *prima facie* case of obviousness under U.S.C. § 103, as there is no suggestion or motivation, either in the cited reference or in the knowledge generally available to one of ordinary skill in the art, to modify the reference to provide for the various limitations of the applicants' invention.

SUMMARY

Due to lack of specificity, applicants' contend that the examiner, in the office action of 01/02/2004, has failed to address a *prima facie* case of obviousness under U.S.C. § 103 by failing to clearly point how the Hamilton reference applies to each and every limitation of each rejected claim. In addition, applicants' also contend that there is no suggestion or motivation, either in the cited reference, Hamilton et al., or in the knowledge generally available to one of ordinary skill in the art, to modify the reference to provide for the various limitations of the applicants' invention.

As has been detailed above, none of the references, cited or applied, provide for the specific claimed details of applicants' presently claimed invention, nor render them obvious. It is believed that this case is in condition for allowance and reconsideration thereof and early issuance is respectfully requested.

As this Appeal Brief has been timely filed within the set period of response, no petition for extension of time or associated fee is required. However, the Commissioner is hereby authorized to charge any deficiencies in the fees provided, to include an extension of time, to Deposit Account No. 09-0441.

Respectfully submitted by
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Appendix:

1.   A system for enhancing sales for service providers by utilizing an opportunistic approach based on an unexpected change in a schedule of service, said system comprising:

an event retriever, said event retriever generating an event pair which comprises a target value and an actual value associated with said schedule of services;

an event observer, said event observer receiving said event pairs from said event retriever, calculating the difference between said actual and target value, and based on one or more rules from a first set of rules, identifying and notifying a window of opportunity detector regarding potential windows of opportunities, wherein each potential window of opportunity defines a time period of customer inactivity;

said window of opportunity detector, which receives said potential windows opportunities, detects, based on one or more rules from a set of second rules, if a window of opportunity exists, and if so, matches said detected windows of opportunities with service providers for the purposes of providing a new product or a service separate from said scheduled service.

2.   A system for enhancing sales for service providers by utilizing an opportunistic approach based on an unexpected change in a schedule of service, as per claim 1, wherein said event retriever further utilizes service provider schema information stored in a service provider schema database to generate said event pairs.

3.   A system for enhancing sales for service providers by utilizing an opportunistic approach based on an unexpected change in a schedule of service, as per claim 2, wherein said service provider schema is a document type definition (DTD).

4.   A system for enhancing sales for service providers by utilizing an opportunistic approach based on an unexpected change in a schedule of service, as per claim 2, wherein said service provider schema is an XML schema.

5.   A system for enhancing sales for service providers by utilizing an opportunistic approach

based on an unexpected change in a schedule of service, as per claim 1, wherein said one or more

rules from said set of first rules is a threshold rule, and said potential windows of opportunities

are identified based on comparing said difference between said actual and target value against

said threshold.

6.   A system for enhancing sales for service providers by utilizing an opportunistic approach

based on an unexpected change in a schedule of service, as per claim 1, wherein said one or more

rules from said set of second rules are provided externally by said service providers.

7.   A system for enhancing sales for service providers by utilizing an opportunistic approach

based on an unexpected change in a schedule of service, as per claim 1, wherein said system

further accesses a subscription management service wherein said events and schedules are

defined for tracking.

8.   A system for enhancing sales for service providers by utilizing an opportunistic approach

based on an unexpected change in a schedule of service, as per claim 1, wherein said one more

rules of said set of first and one or more rules of a set of second rules are stored in a rule

database.

9.   A system for enhancing sales for service providers by utilizing an opportunistic approach

based on an unexpected change in a schedule of service, as per claim 1, wherein said events are

Internet Calendaring and Scheduling Core Object Specification (iCalendar) events.

10.   A system for enhancing sales for service providers by utilizing an opportunistic approach

based on an unexpected change in a schedule of service, as per claim 1, wherein said event

retriever further comprises:

an enhanced gatherer, which dynamically receives information from service providers

over a network using simulated user interaction, and

a pattern matcher, which extracts said event pair from said received information based on matching the structure of said received information with that of a stored schema of said service providers.

11. A system for enhancing sales for service providers by utilizing an opportunistic approach based on an unexpected change in a schedule of service, as per claim 10, wherein said enhanced gatherer is a web crawler.

12. A system for enhancing sales for service providers by utilizing an opportunistic approach based on an unexpected change in a schedule of service, as per claim 10, wherein said network comprises any of the following: local area networks (LANs), wide area networks (WANs), wireless networks, or the Internet.

13. A system for enhancing sales for service providers by utilizing an opportunistic approach based on an unexpected change in a schedule of service, as per claim 1, wherein said received event pairs are extracted from a markup language form.

15. A method for enhancing sales for service providers by utilizing an opportunistic approach based on an unexpected change in a schedule of service, wherein said step of detecting a window of opportunity comprises of:

electronically acquiring service schedules of one or more service providers;

detecting an unexpected change in said schedule;

checking if potential customers are blocked due to said unexpected change in schedule, said blocking defining a period of inactivity;

detecting one or more potential windows of opportunities for sales to said potential customers;

checking if service providers benefit from said detected potential windows of

opportunities, and

providing notification regarding said potential windows of opportunities to service

providers who benefit from such information, and

wherein said service providers offer a new product or service separate from said

scheduled service to said potential customer during said period of inactivity.

16. A method for enhancing sales for service providers by utilizing an opportunistic approach

based on an unexpected change in a schedule of service, as per claim 15, wherein said step of

detecting an unexpected change in said schedule further comprises:

simulating user interaction via data gathering software to request data from service

providers via a network;

receiving information from said service providers via said network;

accessing a service provider schema database and reading schema regarding said service

providers;

matching said received information with said read schema associated with said service

providers, and

extracting data events, comprising actual and target data, based on said matching step.

17. A method for enhancing sales for service providers by utilizing an opportunistic approach

based on an unexpected change in a schedule of service, as per claim 16, wherein said network

comprises any of the following: local area networks (LANs), wide area networks (WANs),

wireless networks, or the Internet.

18. A method for enhancing sales for service providers by utilizing an opportunistic approach

based on an unexpected change in a schedule of service, as per claim 15, wherein said data

gathering software comprises data mining software.

19.   A method for enhancing sales for service providers by utilizing an opportunistic approach based on an unexpected change in a schedule of service, as per claim 15, wherein said extracted data events are iCalendar events.

20.   A method for enhancing sales for service providers by utilizing an opportunistic approach based on an unexpected change in a schedule of travel services, wherein said method comprising:

    extracting standardized event data comprising an actual event value and a target value from said travel service provider via a network;

    comparing, based on one or more rules from a set of first rules, the difference of said actual value and target value against a threshold value;

    detecting a window of opportunity based on one or more rules from a set of second rules, and

    distributing said window of opportunity information to said service providers for enhancing said service provider's sales, if said detection of window of opportunity occurs said sales providers providing a new product or a new service separate from said scheduled service.

21.   A method for enhancing sales for service providers by utilizing an opportunistic approach based on an unexpected change in a schedule of travel services, as per claim 20, wherein said travel services comprises any of: airlines, trains, or buses.

22.   A method for enhancing sales for service providers by utilizing an opportunistic approach based on an unexpected change in a schedule of travel services, as per claim 20, wherein said event data is arrival or departure times and locations associated with said specific airline.

23.   A method for enhancing sales for service providers by utilizing an opportunistic approach based on an unexpected change in a schedule of travel services, as per claim 20, wherein said one or more rules from said set of first rules is based on said difference of actual and target values being above or below a predetermined threshold.

24.   A method for enhancing sales for service providers by utilizing an opportunistic approach based on an unexpected change in a schedule of travel services, as per claim 20, wherein said one or more rules from said set of second rules is based on rules provided by service providers.

25.   A method for enhancing sales for service providers by utilizing an opportunistic approach based on an unexpected change in a schedule of travel services, as per claim 24, wherein said rules provided by service providers are stored in a rules database.

26.   A method for enhancing sales for service providers by utilizing an opportunistic approach based on an unexpected change in a schedule of travel services, as per claim 20, wherein said step of extracting standardized event data further comprises:

    accessing said travel service provider's webpage over a network;

    posting data regarding a specific travel provider in said webpage and querying for information regarding schedule of said specific travel service;

    receiving a web document from said travel service provider regarding said schedule of said specific travel provider;

    accessing a service provider schema database and reading a schema associated with said travel service provider;.

    matching said received web document with said read schema and extracting event data, and

    standardizing said extracted event data.

27.   A method for enhancing sales for service providers by utilizing an opportunistic approach based on an unexpected change in a schedule of travel services, as per claim 24, wherein said network comprises any of the following: local area networks (LANs), wide area networks (WANs), wireless networks, or the Internet.

28.   A method for enhancing sales for service providers by utilizing an opportunistic approach based on an unexpected change in a schedule of travel services, as per claim 26, wherein said step of posting data is accomplished using a HTTP POST command.

29.   A method for enhancing sales for service providers by utilizing an opportunistic approach based on an unexpected change in a schedule of travel services, as per claim 26, wherein said web document is of any of following formats: HTML, SGML, or XML.

30.   A method for enhancing sales for service providers by utilizing an opportunistic approach based on an unexpected change in a schedule of travel services, as per claim 26, wherein said read schema is an XML schema.

31.   A method for enhancing sales for service providers by utilizing an opportunistic approach based on an unexpected change in a schedule of travel services, as per claim 26, wherein said read schema is a DTD.

32.   A method for enhancing sales for service providers by utilizing an opportunistic approach based on an unexpected change in a schedule of travel services, as per claim 26, wherein said step of standardizing involves standardizing based on iCalendar standard.

33.   An article of manufacture comprising a computer user medium having computer readable code embodied therein which provides for a e-commerce method for enhancing sales to potential customers, said article comprising:

computer readable code electronically acquiring service schedules of one or more service

providers;

computer readable code detecting an unexpected change in said schedule;

checking if potential customers are blocked due to said unexpected change in schedule,

said blocking defining a period of inactivity;

computer readable code detecting one or more windows of opportunities for sales to said

potential customers;

computer readable code checking if service providers benefit from said detected potential

windows of opportunities, and

computer readable code providing notification regarding said potential windows of

opportunities to service providers who benefit from such information, wherein said service

providers offer a new product or service separate from said scheduled service to said potential

customers during said period of inactivity.